

CLAIMS

What is claimed is:

1. A medical probe for use with tissue, comprising:
5 an elongate member having a proximal end and a distal end;
an operative element carried at the distal end of the elongate member; and
a stabilizer configured for applying a vacuum force to secure the operative
element relative to the tissue.
- 10 2. The medical probe of claim 1, wherein the operative element comprises an
electrode for delivering ablation energy to the tissue.
3. The medical probe of claim 1, wherein the operative element comprises an
electrode for sensing signals from the tissue.
- 15 4. The medical probe of claim 1, wherein the operative element comprises an
expandable-collapsible body having an interior.
5. The medical probe of claim 4, wherein the expandable-collapsible body
20 comprises a plurality of pores sized to permit ionic transfer from the interior of the body
to outside the body.

6. The medical probe of claim 4, wherein the operative element further comprises an electrode located inside the expandable-collapsible body.
7. The medical probe of claim 4, wherein the expandable-collapsible body is non-
5 porous.
8. The medical probe of claim 7, wherein the operative element further comprises an electrically conductive shell disposed on the expandable-collapsible body.
- 10 9. The medical probe of claim 1, wherein the stabilizer is secured to the distal end of the elongate member.
10. The medical probe of claim 1, wherein the stabilizer comprises one or more vacuum ports.
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11. The medical probe of claim 1, wherein the stabilizer comprises a shroud disposed around the distal end of the elongate member.
12. The medical probe of claim 11, wherein the shroud is composed of a material
20 exhibiting a low electrical conductivity.

13. The medical probe of claim 11, wherein the shroud is pre-shaped to expand in the absence of a compressive force.
14. The medical probe of claim 1, wherein the stabilizer comprises one or more tubes.
- 5 15. The medical probe of claim 14, wherein the one or more tubes are external to the operative element.
16. The medical probe of claim 14, wherein the one or more tubes are internal to the
- 10 operative element.
17. The medical probe of claim 11, wherein the operative element comprises an expandable-collapsible body, and the shroud has a first configuration when the expandable-collapsible body is inflated, and a second configuration when the
- 15 expandable-collapsible body is deflated.
18. The medical probe of claim 1, further comprising a handle assembly mounted to the proximal end of the elongate member.
- 20 19. The medical probe of claim 18, wherein the handle assembly comprises a steering mechanism for steering the distal end of the elongate member.

20. The medical probe of claim 1, wherein the elongate member comprises a catheter member.
21. The medical probe of claim 1, further comprising a sheath having a lumen
5 through which the elongate member is slidably disposed.
22. The medical probe of claim 21, wherein the stabilizer is associated with the distal end of the elongate member.
- 10 23. The medical probe of claim 1, further comprising a sleeve having a lumen through which the elongate member is slidably disposed, wherein the stabilizer is associated with the sleeve.
24. The medical probe of claim 23, wherein the stabilizer is secured to the sheath.
- 15 25. A method of performing a medical procedure on a patient, comprising:
introducing a medical probe having an operative element within the patient, the operative element being adjacent a target tissue;
applying a vacuum force between the medical probe and the target tissue to secure
20 the operative element relative to the target tissue; and
operating the operative element to perform the medical procedure on the target tissue while the operative element is secured relative to the target tissue.

26. The method of claim 25, wherein the operative element comprises an electrode.
27. The method of claim 26, wherein the electrode is an ablation electrode, and the
5 operating comprises delivering ablation energy to the ablation electrode.
28. The method of claim 26, wherein the electrode is a mapping electrode, and the
operating comprises using the mapping electrode to sense a cardiac signal.
- 10 29. The method of claim 25, wherein the target tissue is cardiac tissue.
- 30 The method of claim 29, wherein the cardiac tissue is endocardial tissue.
31. The method of claim 25, wherein the target tissue is organ tissue.